

**ABSTRACT OF THE DISCLOSURE**

An information recording/reproducing apparatus, which includes a binary/multi-level data converting unit converting binary data into multi-level data, a test  
5 data generating unit generating test data forming part of the multi-level data, a data recording unit recording the multi-level data including the test data to an information recording medium, a signal reproducing unit outputting reproduction signals of the multi-level data  
10 including the test data from the information recording medium, a test data examining unit examining the reproduction signals of the multi-level data including the test data to determine whether the test data is normal, a waveform equalization unit equalizing a  
15 waveform of the examined test data when the test data examining unit determines that the test data is normal, and a multi-level determining unit determining multi-level data by referring to a pattern table generated using the examined test data.